

LDWSE

4.1.1

9/8/2011

USEPA SF



1390878



RE: Jorgensen
David Templeton
to:
Shawn Blocker
09/08/2011 08:47 AM
Cc:

Ryan Barth, "john.s.wakeman@usace.army.mil", Charles Ordine, David Templeton
Hide Details
From: David Templeton <dtempleton@anchorqea.com>

To: Shawn Blocker/R10/USEPA/US@EPA

Cc: Ryan Barth <rbarth@anchorqea.com>, "john.s.wakeman@usace.army.mil"
<john.s.wakeman@usace.army.mil>, Charles Ordine/R10/USEPA/US@EPA, David
Templeton <dtempleton@anchorqea.com>

Shawn,

With regards to your #2 comments below, let me clarify my statement #1 and our statements in the Appendix as I think we are very clear that, where possible given the nature of the encountered material, an prevision excavator with enclosed bucket will be the primary technology used during our EE/CA removal action. Our clarifications are limited to in-water SMUs and do not speak to removal actions in the shoreline SMUs (3, 5, 8 and 11). Removal in these areas will be conducted from the landside using an excavator with a closed bucket or digging bucket, depending on the nature of the encountered debris. This work will be conducted primarily in the "dry" based on encountered LDW water surface elevations during the in-water work window and required work hours.

To date we have completed two rounds of subsurface sediment characterization throughout our removal action boundary, completed a probing survey along the toe of shoreline bank to identify the presence of surface debris/riprap (designated by red dashed line on Figure 6-17 in Final EE/CA), and conducted visual monitoring during numerous negative tides over many years. These investigations have identified limited scattered, smaller debris in the channelward SMUs (i.e., SMU 2, 4B, 4C, 7 and 10) with increasing density and size of debris in the further nearshore SMUs (i.e., 1A, 1B, 4A, 6 and 9). These are the SMUs I identified as "those adjacent to the shoreline" in my statement 1 below and the focus of our comments on the presence of larger, contiguous debris in the Appendix. As shown in Figure 6-17 in the Final EE/CA, the mudline elevations in these nearshore SMUs are generally below 0 ft MLLW. During the in-water construction window the LDW water surface elevations rarely, if ever, fall below 0 ft MLLW during EPA's identified work hours. Therefore, removal in these SMUs will necessarily be conducted in-the-wet. Per EPA's requirements, we are going to attempt to conduct the removal in both the channelward and nearshore SMUs using an articulated excavator equipped with a closed bucket.

However, we are trying to be transparent as possible that the documented density, size and nature of the debris that will be encountered in the nearshore SMUs (much less of an issue in the channelward SMUs) may require the use of a digging bucket on the excavator and/or deployment of a conventional derrick with clamshell digging bucket in isolated areas. Specifically, our Appendix states the following with respect to removal equipment:

"This BMP involves the following action:

- Select the appropriate dredging equipment (excavator or derrick) based on the site conditions and accuracy requirements.

Applying this BMP resulted in the selection of an excavator (also known as an articulated fixed-arm dredge) with an enclosed bucket as the primary dredging equipment for the project, and a conventional derrick with clamshell, grapple, or vibratory hammer for removal of large debris and piling, as discussed in Section 2.3."

Similarly, the Appendix states the following with respect to bucket type:

"This BMP involves the following actions:

- Use an enclosed environmental type bucket to limit sediment loss to the extent possible.
- A standard clamshell bucket will be required for denser sediments and debris removal.

For the reasons discussed in Section 2.3.1.1.3, the proposed EE/CA removal action would use mechanical dredging using an excavator with an articulated, enclosed bucket. As discussed in Section 2.2.3, larger debris that have been identified in the removal action area, such as trees, large concrete blocks, intact and broken pilings, and molten debris piles, are likely beyond the lifting capacity of this type of bucket. In areas where this type of bucket is unable to remove the encountered material, a heavier bucket with digging capabilities or a conventional wire-supported clamshell dredge, grapple, or vibratory hammer would be required."

Our intent is not to have or communicate an "over reliance on alternative dredging methods". I recommend that we (Ryan Barth and myself) meet with you and John to discuss (as soon as possible) as I think we have a common goal of using a precision articulated bucket with enclosed bucket, where possible, but allow for the use of heavier duty digging equipment in areas where that equipment is ineffective. If we are to get in the water in late 2012, approval of the EECA and the Action Memorandum are key before finalize an AOC/SOW for design/remedial action.

As a side note, we continue to work closely with Boeing and have had some discussions with the Port regarding T117 to get that coordination going.

(b) (6)

Thanks

David Templeton

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-----Original Message-----

From: Blocker.Shawn@epamail.epa.gov [mailto:Blocker.Shawn@epamail.epa.gov]
Sent: Wednesday, September 07, 2011 7:49 AM
To: David Templeton
Cc: Ryan Barth; john.s.wakeman@usace.army.mil; Ordine.Charles@epamail.epa.gov
Subject: RE: Jorgensen

David;

I will be forwarding the Appendix to John Wakeman for his review. My initial impressions are:

1. The descriptions and format are fine, as are your statements #2 and #3 below.
2. The below #1 and the stated over-reliance on alternative dredging methods in the Appendix is a show stopper. If you expect to encounter material in the near shore sediments that cannot be handled by the excavator using an environmental bucket, then the use of traditional excavators in the dry is the preferred alternative and should be stated so. I will defer to what John says, but right now, the document cannot be approved. I have stated several times that both Boeing and Jorgensen will conduct as much work in the "dry" as possible, and this document and the response below says the opposite.

I hope to have an answer back from John within a week.

Thanks,
Shawn Blocker
Corrective Action and Permits Team
U.S. EPA Region 10
1200 6th Avenue
AWT-121
Seattle, WA 98101

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From: David Templeton <dtempleton@anchorqea.com>
 To: Shawn Blocker/R10/USEPA/US@EPA
 Cc: Ryan Barth <rbarth@anchorqea.com>, David Templeton
 <dtempleton@anchorqea.com>
 Date: 09/06/2011 12:31 PM
 Subject: RE: Jorgensen

As you draft the Action Memorandum, I think it will be prudent to state that:

1. Debris may be expected in all SMUs but that those adjacent to the shoreline have the highest probability of us encountering debris and needing to use alternative equipment. This work would be in-water work.
2. Debris within the bank will be removed from the upland in the "dry" to the extent possible.
3. Dredge depths in the EECA are solid estimates and these will be refined during dredge design work to fine tune the transition between SMUs and to integrate any additional design information.

Thanks

David Templeton

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-----Original Message-----

From: Blocker.Shawn@epamail.epa.gov [
<mailto:Blocker.Shawn@epamail.epa.gov>]
 Sent: Tuesday, September 06, 2011 9:18 AM

To: David Templeton
Cc: Ryan Barth
Subject: RE: Jorgensen

David;

Quick question....looking at the alternative 4 in the EE/CA, you are dredging to a depth over 5.5 ft feet in the wet in only three places...SMU-4B, SMU-4C, SMU-2. I assume these are the places you are referring to in the new Appendix E where you may encounter debris that the excavator cannot handle in the wet. I also assume that you plan on removing the two debris piles using a regular excavator from the bank while the material is dry,

Are these assumptions correct?

Shawn Blocker
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From: David Templeton <dtempleton@anchorqea.com>
To: David Templeton <dtempleton@anchorqea.com>, Shawn Blocker/R10/USEPA/US@EPA
Cc: Ryan Barth <rbarth@anchorqea.com>, 'Desiree Clement' <dclement@farallonconsulting.com>
Date: 09/02/2011 03:35 PM
Subject: RE: Jorgensen

Shawn,

Attached is Appendix E (we worked with Boeing on this version so it is applicable to Jorgensen) and a few replacement pages for the EECA (redline and final). I hope this gives you what you need....can we speak on Tuesday?

(b) (6)

Thanks

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From: David Templeton
Sent: Wednesday, August 24, 2011 3:43 PM
To: 'Shawn Blocker'
Cc: Ryan Barth
Subject: Jorgensen

We should have the Appendix E on Technology and BMPs to you next week (we have discussed with Boeing). In our continued effort to help this process go as smooth as possible and as you draft the Action Memorandum, please consider the following statements we provided in March as I think they will clarify the path forward. We have also gone ahead and drafted a SOW for consideration as the next step will be the AOC. The SOW will require discussion and fine tuning but a good starting point.

1. Jorgensen Forge Corporation and Earle M. Jorgensen (EMJ) expect to begin negotiation of an amended AOC or Consent Decree for design and implementation of the selected alternative in August 2011.
2. The CQAP will include water quality monitoring necessary to meet the 401 Water Quality Certification (drafted by EPA after the draft CQAP is developed) within 300 feet of work area (150 feet would be an early warning distance from dredge, barge and other construction equipment). During the design of the selected alternative, an evaluation of Best Management Practices (BMPs) and corrective actions necessary to minimize the potential for re-suspension of sediments outside the area addressed in the 401 WQC during dredging will be performed and integrated into the design specifications, CQAP and contract documents, as appropriate. BMPs will include specific methods for dredging (no overfilling bucket, no stockpiling under water, etc.) and will consider:
 - a. Develop an accurate model for depth of contamination (DoC). Use the results of the completed sediment coring program, in combination with geospatial analysis, to develop an accurate digital terrain model of the DoC to be removed during dredging.

- b. Use the DoC terrain model, plus an allowance for dredge tolerance, to develop an accurate digital terrain model of the Design Dredge Elevation (DDE).
 - c. Perform dredging to the DDE in a single operation for each subunit (dredge unit), if possible, as verified by periodic bathymetric surveys.
 - d. Select the appropriate dredging equipment (excavator or derrick) based on the site conditions and accuracy requirements.
 - e. Closed buckets will be considered but may not be appropriate for site conditions. A standard clamshell digging bucket (various sizes) will be required for denser sediments and debris removal.
 - f. Use sub-foot accuracy GPS system for accurate GPS bucket positioning.
 - g. Implement stair-step dredge cuts for steeper slopes to reduce sloughing of sediment, where appropriate.
 - h. Sediment barges outside of work area will have no direct overflow. The CQAP and Water Quality Certification will address water quality within the work area.
 - i. Conduct intertidal excavation "in the dry" to the degree reasonably possible using land-based equipment."
3. The Jorgensen selected remedy will continue to be coordinated closely with the Boeing Plant 2 work and hope to have a single offloading and re-handling site. This site has not been identified and we may need to construct one at Jorgensen.
4. Jorgensen/EMJ may collect additional information to support the selected alternative design and such studies (geotechnical, wind-wave analyses, subsurface cores, etc.) would be presented in the Basis of Design Report. This will include work performed in February 2011 to refine the vertical extent of sediment concentrations exceeding the total PCBs Removal Action Level (RVAL) in accordance with the EPA-approved Work Plan for Additional Design Sediment Sampling (Anchor QEA 2011). Any modifications to the selected alternative conceptual design presented in the EE/CA would be documented in the Basis of Design Report and would not require public review. These modifications may include the integration of an restoration alternative to resolve potential future natural resource damages claims.
5. The performance standard for successful completion of the recommended removal action alternative (Alternative 4 in Section 6.4 of the EE/CA) is the removal of sediments within the RAB containing sediment concentrations above the total PCB RVAL and reconfiguration of the shoreline. The target vertical elevations to achieve this removal will be defined in the final design documents. The selected contractor(s) will complete the removal to the target elevations, and surveys will be performed to document the target elevations have been achieved. Since the existing data will define the final post-dredge surface ("z-layer") chemical concentrations prior to removal and subsequent placement of the backfill material, the collection and analysis of z-layer sediment samples as an element of the selected removal action alternative is not required. [If EPA requires (we believe that the z-layer is characterized) z-layer sampling, we need to acknowledge that the removal activities may result in a

thin layer of sediments with residual total PCB concentrations deposited on the final post-dredge surface. Therefore, the results of any post-dredge sampling and analysis would not trigger any further remedial actions unless the area weighted concentrations in the RAB are significantly greater than the total PCB RVAL (for example, area weighted averages greater than 20 times the RVAL or 240 milligrams per kilogram normalized for organic carbon [mg/kg OC]). In this situation, further evaluation would be required, and if EPA determines that long-term monitoring is necessary for the selected removal action alternative (see Section 1.3.3), these data would be used to document that the surface backfill concentrations in this area(s) are protective of human health and the environment based on the surface weighted average concentrations in the RAB. Any post-dredge z-layer evaluations will be defined in design documents (for example, a Construction Quality Assurance Project Plan [CQAP]).]

6. The requirement for post-construction assessment of sediments will be determined during design and will be defined in an Operation, Monitoring, and Maintenance Plan (OMMP). Upland source control evaluations at the Facility are currently being finalized under an Agreed Order with the Washington State Department of Ecology (Ecology). Source control measures will be in place and operational prior to implementation of the selected removal action alternative. Long-term monitoring will not be required to monitor the performance of the recommended removal action alternative (Alternative 4 in Section 6.4 of the EE/CA) because the vertical extent of total PCB RVAL exceedances will be addressed and the entire area backfilled with 1 to 10.5 feet of clean material. Limited long-term assessment of the final post-construction surface concentrations within the RAB may be required as part of the larger LDW RI/FS process to assess changes in surface sediment chemical concentrations over a 10-year period. Based on the LDW conceptual site model, chemical concentrations in sediments deposited on the surface of the RAB are expected to increase over time from essentially non-detectable concentrations as the newly deposited surface layer reaches equilibrium with chemical concentrations in suspended material originating outside the RAB. Given this expectation, any assessment of the newly deposited surface sediments will not trigger any additional response action by EMJ and Jorgensen Forge (with a demonstration that the Facility is not a source of elevated chemical concentrations to surface sediments).

7. The concrete portion of the "24-inch and Boeing 15-inch Property Line" pipes described in Section 2.6.1.1 of the EE/CA have been closed under an AOC with EPA. The corrugated portion of these two pipe and the combined outfall discharge will be addressed during design the of the adjacent dredge area.

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[attachment "CLEAN pages_Revised Final EECA_Jorgensen Forge Facility_August 2011.pdf" deleted by Shawn Blocker/R10/USEPA/US]

[attachment "REDLINE pages_Revised Final EECA Jorgensen Forge Facility_August 2011.pdf" deleted by Shawn Blocker/R10/USEPA/US]

[attachment "Appendix E_Revised Final EECA_Jorgensen Forge Facility_August 2011.pdf" deleted by Shawn Blocker/R10/USEPA/US]